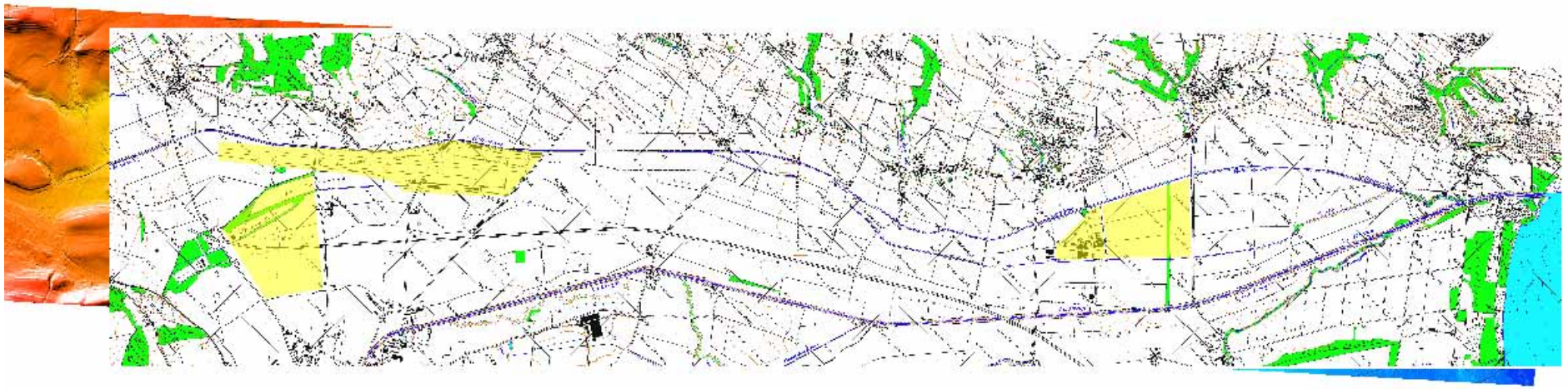
FLOODS “DANGER” MAPPING

Study Area: Petite Glâne

Introduction

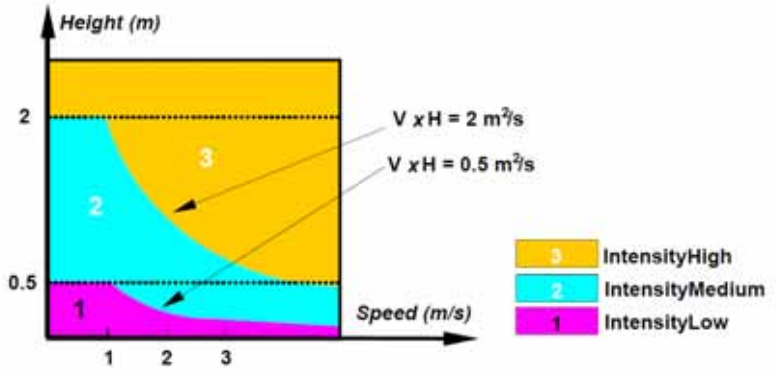
- Problem Definition
  - Growing region (industry, airport, roads etc.)
  - Regular floods on the plane of *Broye*
- Danger Mapping
  - Swiss methodology
  - Inondabilité software

Study Area: Petite Glâne River (Swiss)



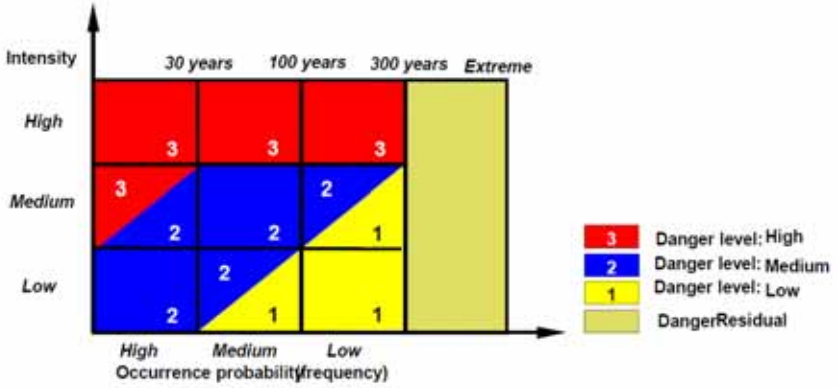
Methodology

- Flood Intensity
  - 30yrs,100yrs and 300yrs



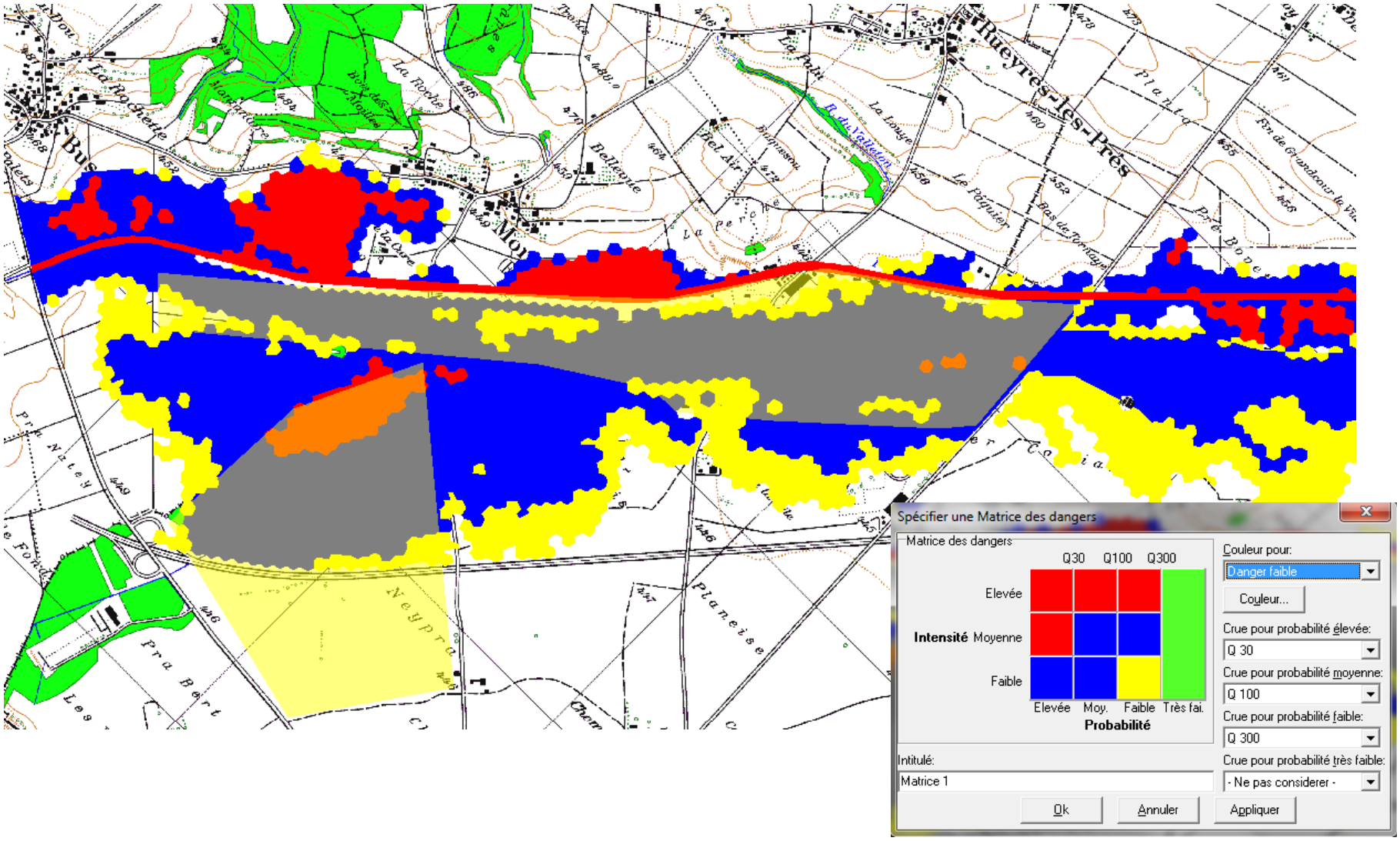
- Danger Map
  - Integration of intensity and probability occurrence

- Mitigation Measures

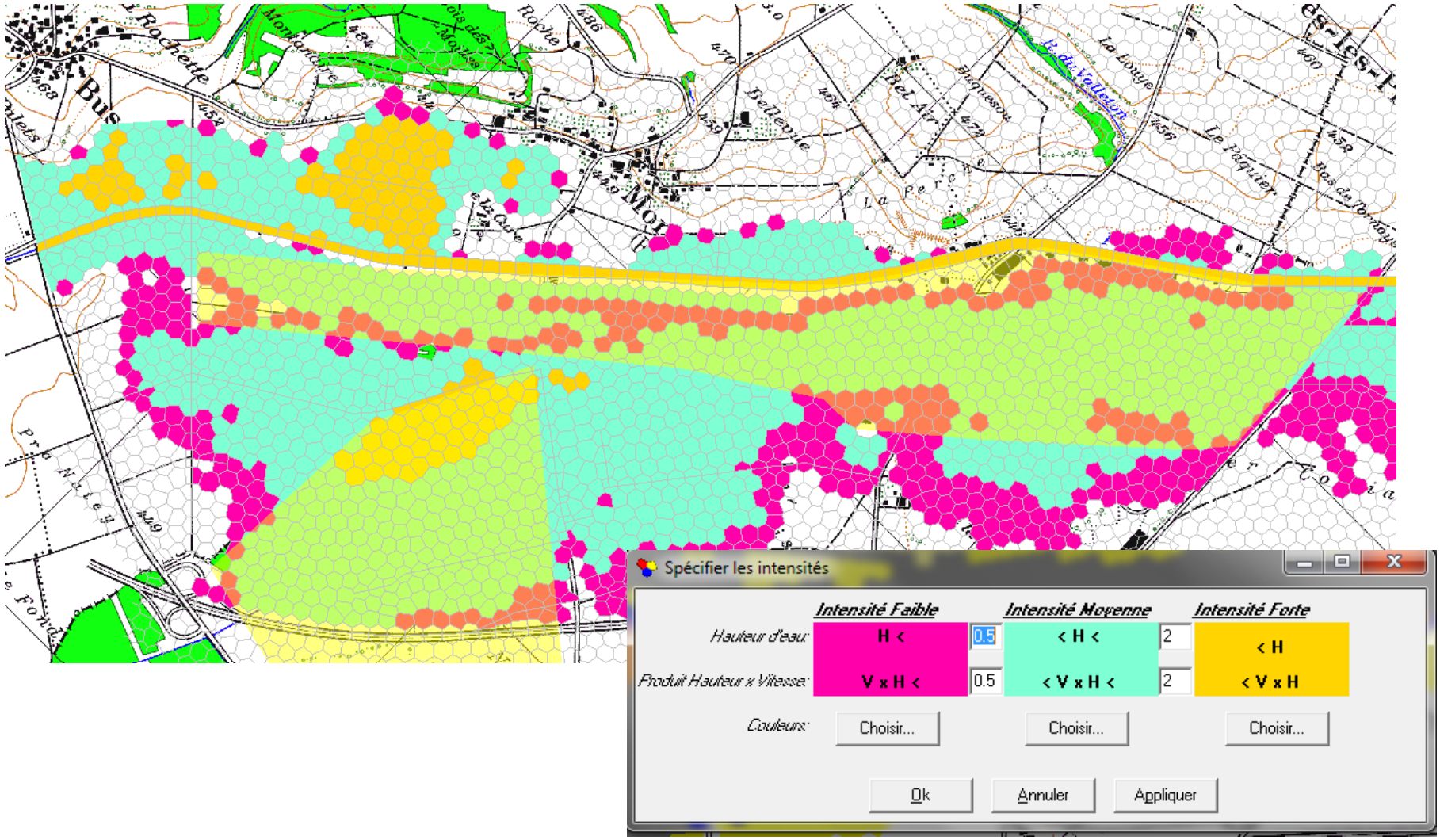


Object 1: Airport

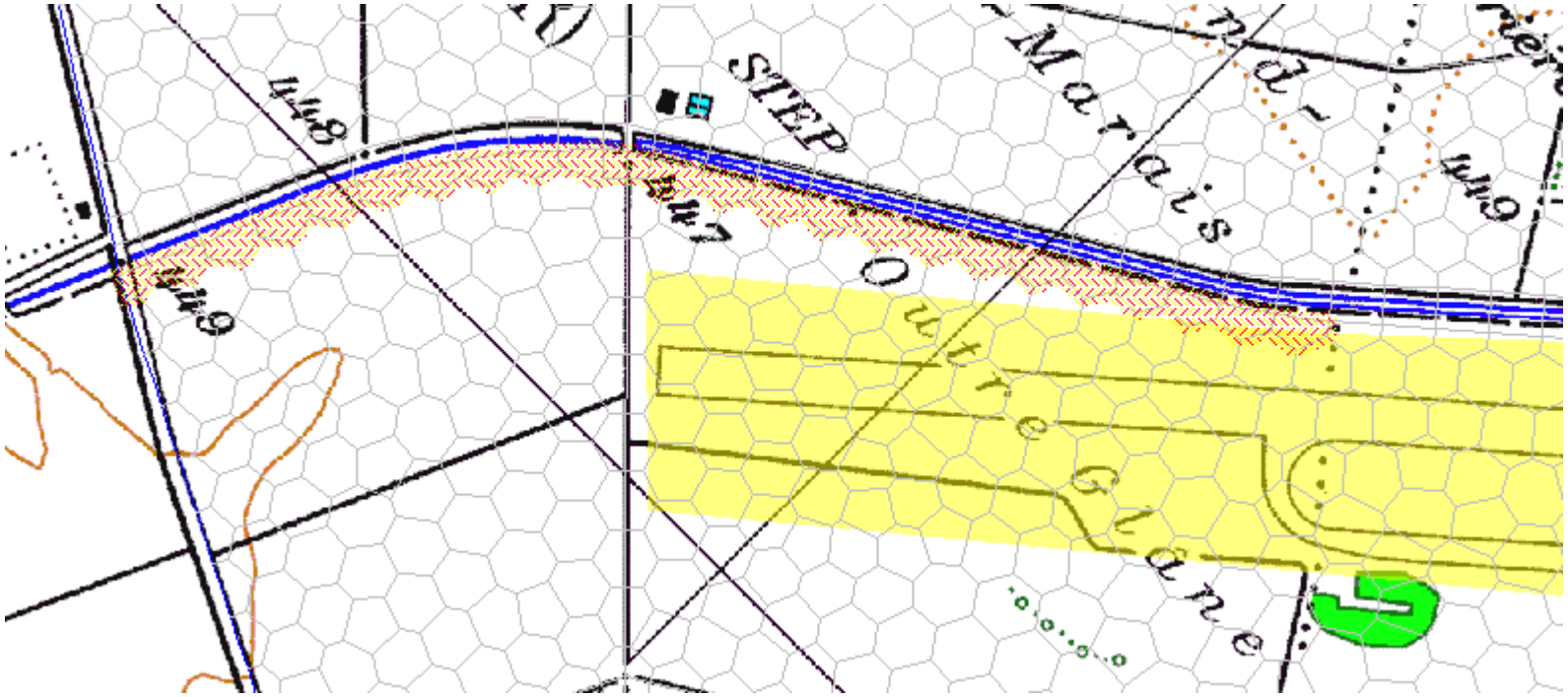
Existing situation: Danger Map



Scenario 1: Before



Scenario 1: Dike 2m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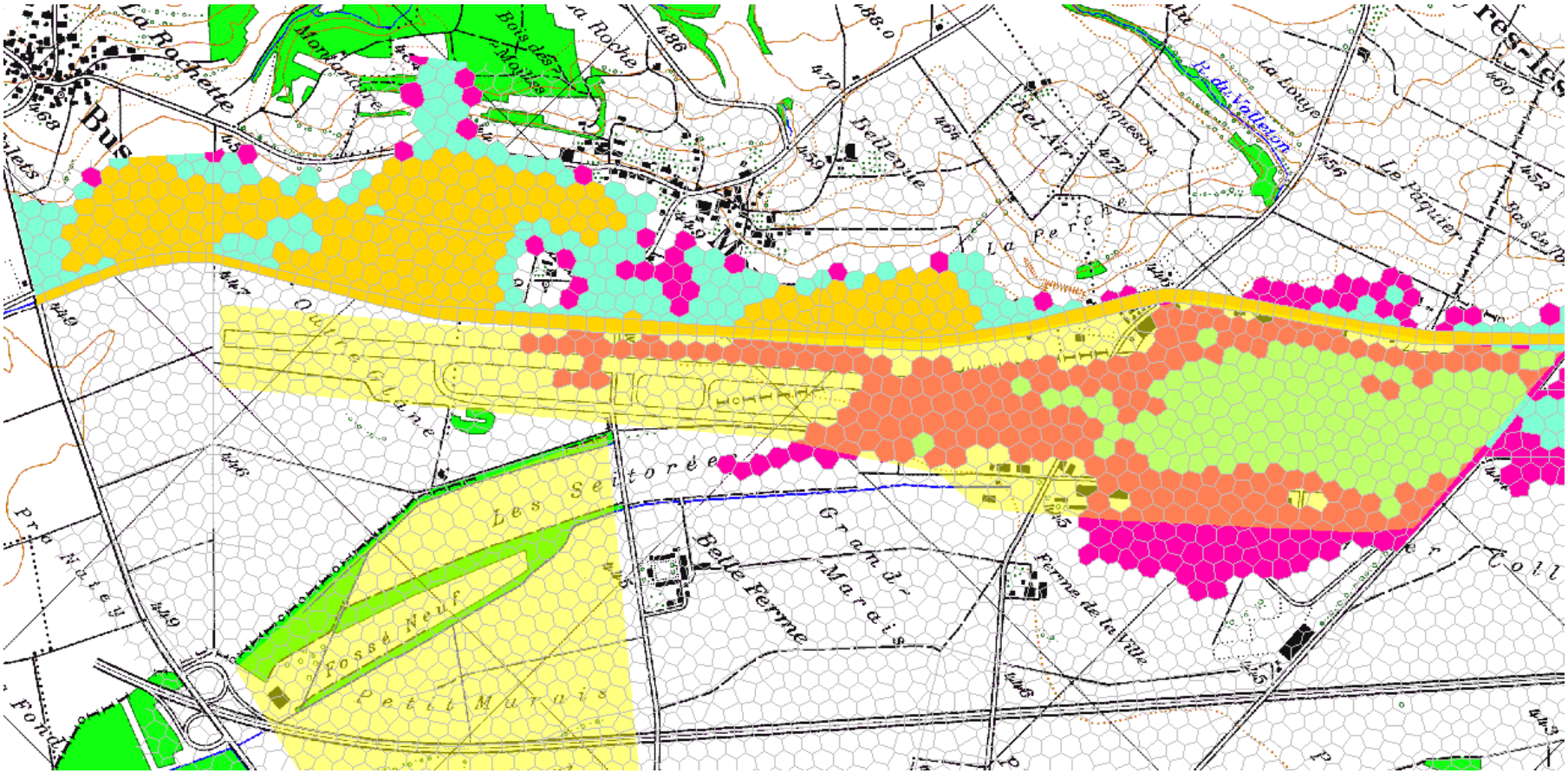
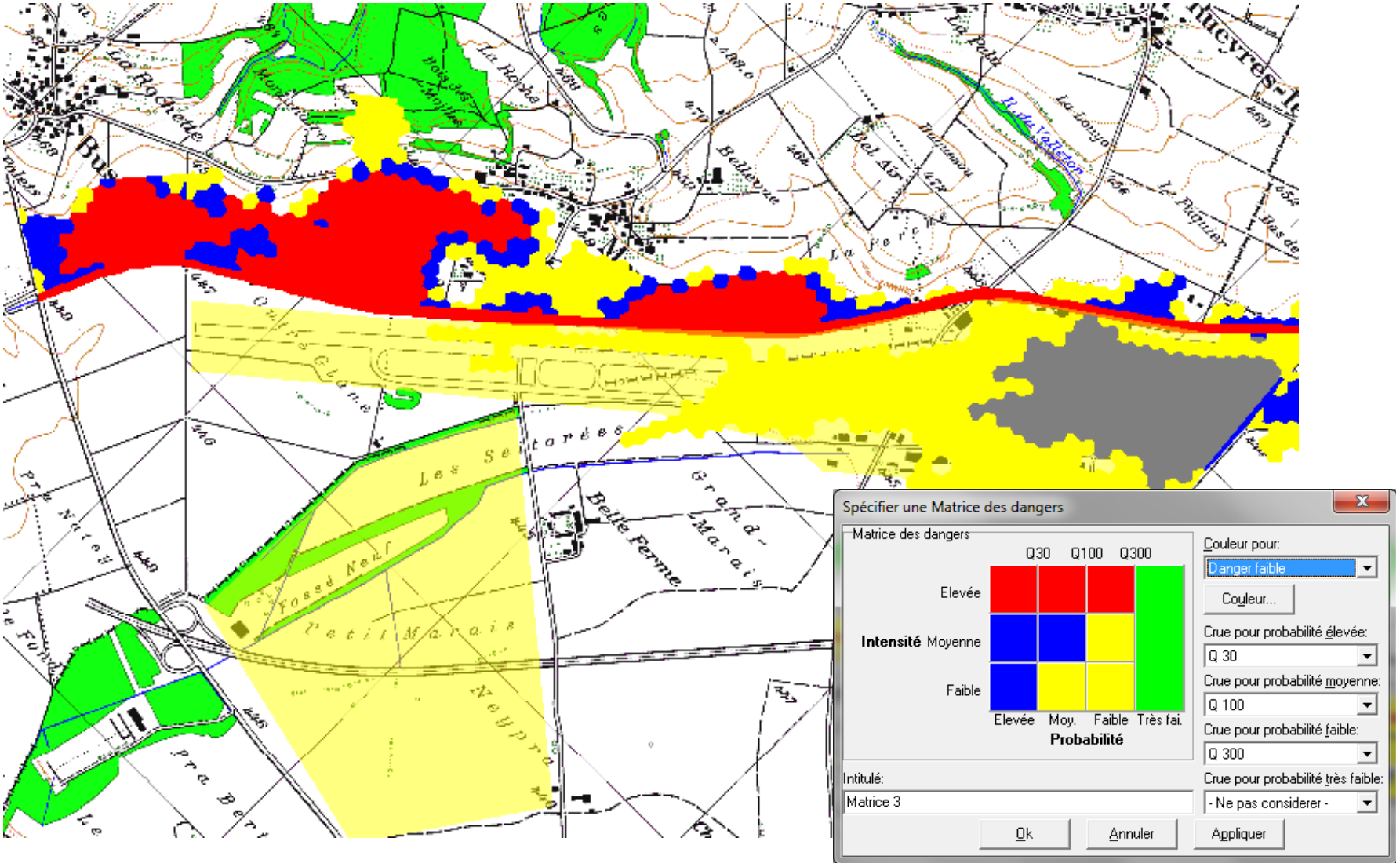
Scenario 1: After

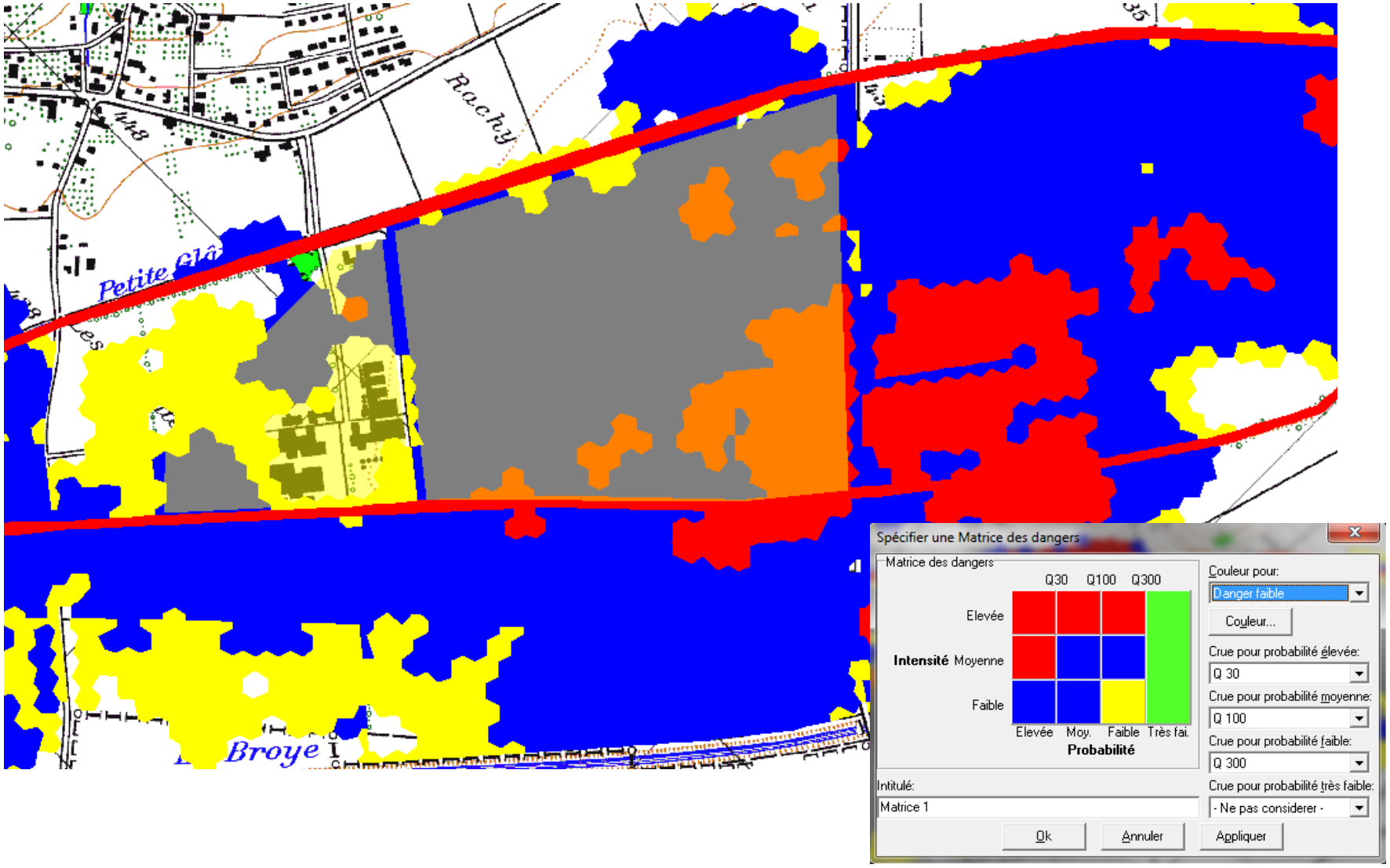


Scenario 1: Danger Map

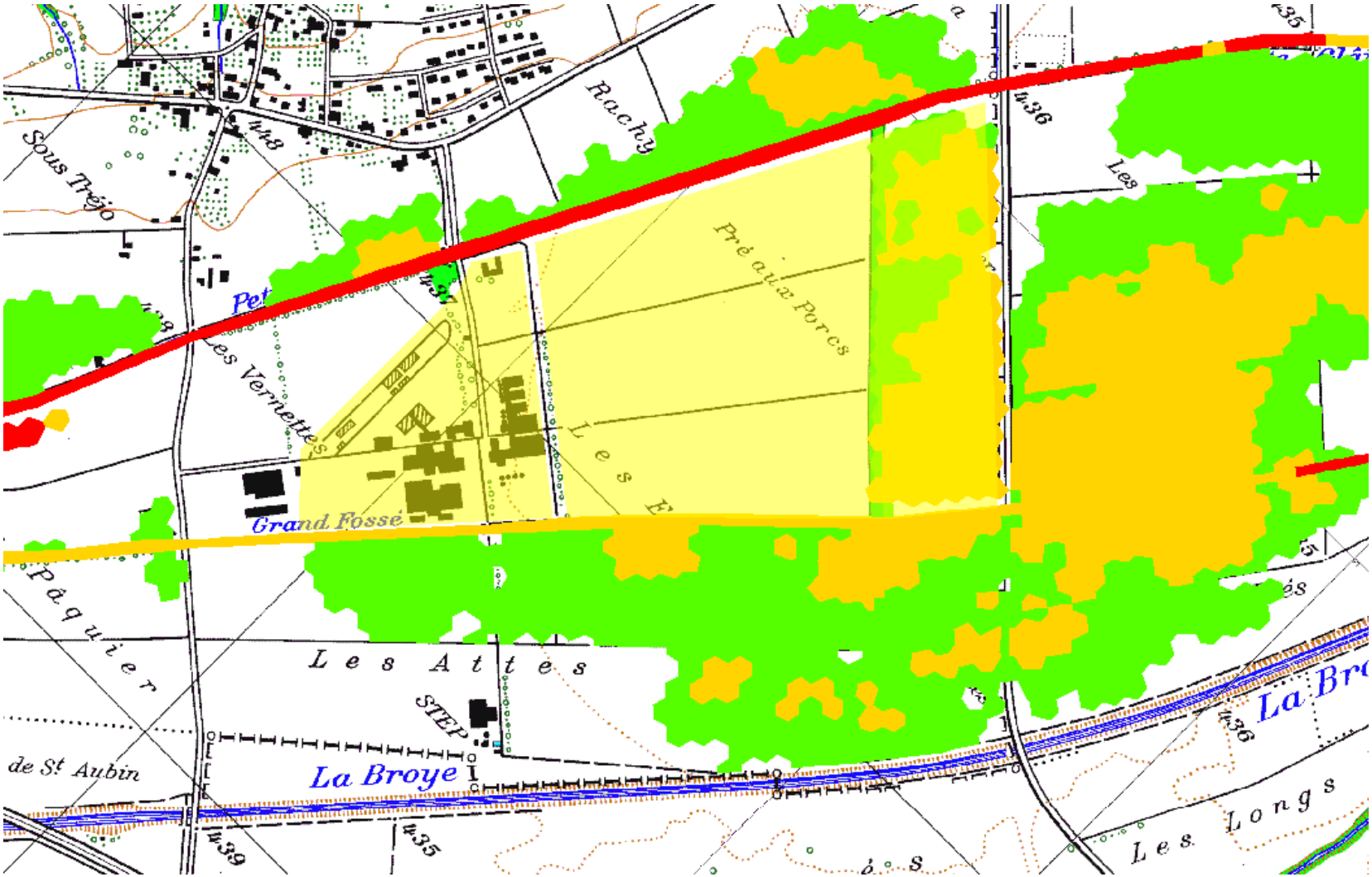


Object 2: Industrial area

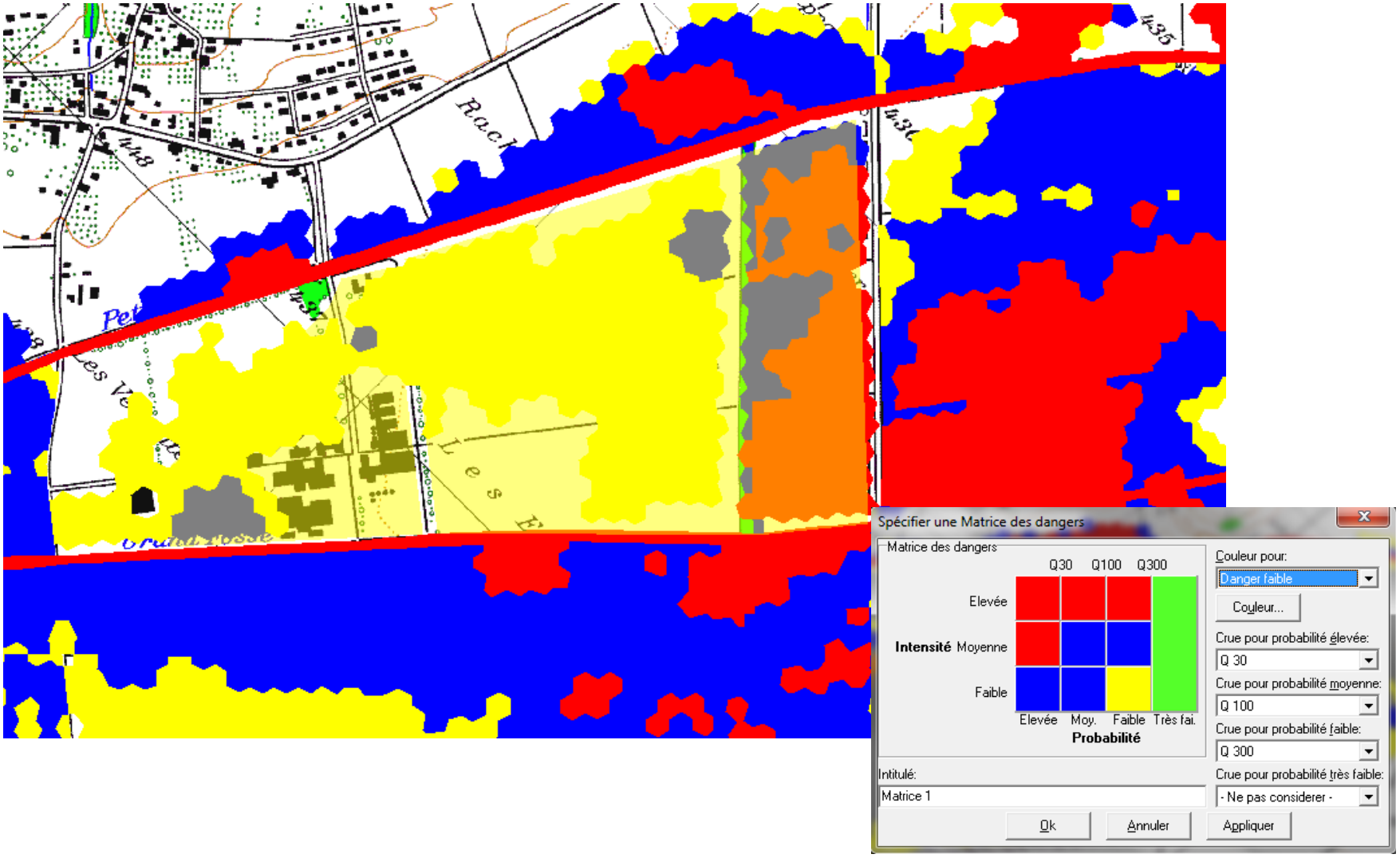
Existing situation: Danger Map



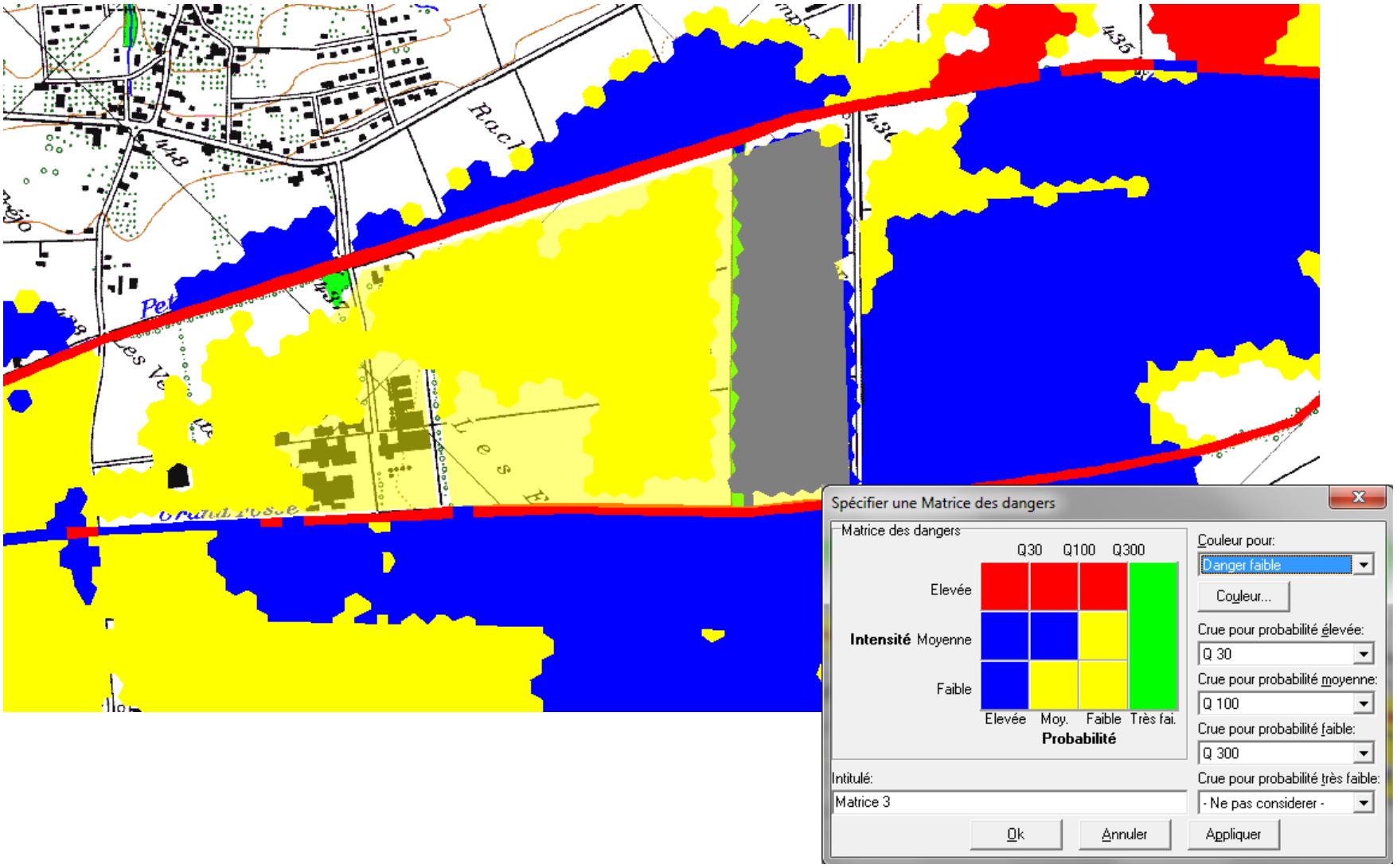
Scenario 2: Intensity map with Dike 2m around the object (30 yrs)



Scenario 2: Danger map with pessimistic



Scenario 2: Danger map with optimistic



Conclusions

- Object1: One dike with 2m height – easy to handle
- Object 2: Three dike with 2m height along the three sides of the object – difficult to handle
- Only dike measure was done, it could be better improved by taking into account other possible options and field observations.